APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/942,782	10/02/97	SOLLICH P	BORL/0170.00

LM02/1210

JOHN A SMART
BORLAND INTERNATIONAL INC
CORPORATE AFFAIRS
100 BORLAND WAY
SCOTTS VALLEY CA 95066

EXAMINER
BOOKER, K

ART UNIT	PAPER NUMBER
2762	5

DATE MAILED:
12/10/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire _____3_____ month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) *1-20* _____ is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-3, 5, 6, 8-11, and 15-18* _____ is/are rejected.

☒ Claim(s) *4, 7, 12-14, 19, and 20* _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on _____*Oct 2, 1997*_____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

    ☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

        ☐ received.

        ☐ received in Application No. (Series Code/Serial Number) _____ .

        ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    *Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____4_____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

DETAILED ACTION

Drawings

1.   Figures 1A, 1B and 2 should be designated by a legend such as --Prior Art-- because only

that which is old is illustrated. See MPEP § 608.02(g).

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use
> or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.   **Claims 1-3, 5-6, 8-11 and 15-18** are rejected under 35 U.S.C. 102(b) as being anticipated

by Frid-Nielsen, U.S. Patent no. 5,339,433.

    As per claim 1, Frid-Nielsen teaches of a method for assisting a user with inputting

source code for a computer program, the method comprising:

    a. detecting a need for assisting the user with input for a source code module under

development (see column 3, lines 33-35, recognition assistance in object-oriented(OO)

development);

b. determining a current cursor position representing a location in the source code module where the user is currently providing input (see column 3, lines 46-53, cursor positioning);

c. determining input items which are suitable for input in the source code module at the current cursor position (see column 3, lines 46-53, providing on-demand inspection); and

d. displaying to the user a list of the suitable input items (see column 3, lines 41-44, source listing(s)).

Frid-Nielsen does not explicitly disclose an "event" feature which automatically inputs a selection by the user of a particular item, from a list residing at a cursor position. However, this feature is deemed to be inherent to the Frid-Nielsen system as lines 53-62 of column 3, and lines 22-25 of column 12 show the usage of "event processing" functions to extrapolate greater detail of an object. The Frid-Nielsen system would not be effective if the user was not able to "drill down" and gather further information.

As per claim 2, Frid-Nielsen teaches of a method wherein the source code is compiled by a compiler into a program which executes on a target microprocessor (see column 3, lines 44-46, generating executable programs).

As per claim 3, Frid-Nielsen teaches of a method wherein the detecting step includes receiving a request from the user (see column 3, lines 38-40, developer driven request(s)).

As per claim 5, Frid-Nielsen teaches of using a "dot operator" in conjunction with file

extensions, but does not explicitly teach of a method wherein the detecting step includes

determining in the source code module, the use of a dot operator.

However, this feature is deemed to be inherent to the Frid-Nielsen system as lines 46-58

of column 1 show the usage of the "dot-extension" format with respect to source and object code.

The Fried-Nielsen system would be inoperable if the use of the dot operator was not present to

distinguish respective modules.

As per claim 6, Frid-Nielsen teaches of a method wherein the detecting step includes

determining in the source code module use of a class variable which references a class member

or method (see column 16, lines 49-60, enumerating information).

As per claim 8, Frid-Nielsen teaches of a method wherein the current cursor position in

the source code module appears within an assignment statement, and wherein the list of suitable

input items comprise a list of items which are assignment compatible (see column 3, lines 47-67,

stored source listings).

As per claim 9, Frid-Nielsen teaches of a method wherein the list of suitable input items

comprises a list of variables defined within the source code module which can appropriately be

inputted at the current cursor position (see column 3, lines 57-67, listing in context).

As per claim 10, Frid-Nielsen teaches of a method wherein the current cursor position

comprises a line number and a column position for a particular source code file (see column 10,

lines 39-42, storing references).

As per claim 11, Frid-Nielsen teaches of a method wherein the step of determining input items which are suitable for input in the source code module includes:

a. determining which variables are within scope for the current cursor position (see column 14, lines 30-46, distinguishing symbols within scope of the type); and

b. eliminating as a suitable input item any item that is not within scope for the current cursor position (see claim 11(a) above).

As per claim 15, Frid-Nielsen teaches of a method wherein the step of determining input items which are suitable for input in the source code module includes:

a. determining a type of input expected at the current cursor position (see column 3, lines 57-62, information appropriate for the context of work); and

b. determining variables within scope at the current cursor position which have a type compatible with the type of input expected at the current cursor position (see claim 15(a) above).

As per claim 16, Frid-Nielsen teaches of a development system comprising:

a. a computer having a processor and a memory (see figure 1A and column 4, lines 50-55, components of the system);

b. an integrated development interface including a code editor for inputting source code into a source code module being created (see figure 4A, integrated development environment(IDE));

c. a compiler for compiling one or more source code modules into a computer program (see figure 3A and column 8, lines 5-9, components of the development system);

d. means, responsive to the integrated development interface and the compiler, for assisting a user with input for a source code module under development, the means comprising:

I) means for determining a current context for source code being inputted (see figure 3A and column 3, lines 57-62, determining the appropriate information in context to the current position);

ii) means for determining appropriate input for the determined current context (see claim 16(d)(I) above); and

iii) means for displaying to the user the determined appropriate input (see figure 2B and 3A, and column 6, lines 3-17 and 27-32, displaying input screens).

As per claim 17, have the same limitations as claim 3, therefore the same rejections apply (see claim 3).

As per claim 18, Frid-Nielsen teaches of a system wherein the means for assisting includes means for detecting a position in the source code module where the system can provide assistance (see claim 1(a)).

Allowable Subject Matter

4.   **Claims 4, 7, 12-14 and 19-20** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5.   The following is a statement of reasons for the indication of allowable subject matter:

in the cited prior art, Frid-Nielsen teaches of a method for assisting in OO development, but fails to explicitly address the issue of system automation in providing input within source modules and referencing of "nested data" with respect to the user input.

Conclusion

6.   An inquiry concerning this communication or earlier communications from the examiner should be directed to Kelvin Booker whose telephone number is (703) 308-4088. The examiner can normally be reached on Monday-Friday from 7:00 AM-5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz, can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-1396.

An inquiry of a general nature or relating to the status of this application proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Kelvin E. Booker

Patent Examiner

Group Art Unit 2762

Tariq R. Hafiz
Supervisory Patent Examiner
Technology Center 2700